

## ATTORNEY DOCKET NO. 14114.0332U2

## IN THE SPECIFICATION

On page 1 of the specification, before the first paragraph, please insert the following:

-- The present application is a 35 U.S.C. § 371 national phase application from, and which claims priority to, international application PCT/US99/12298, filed June 3, 1999, which claims priority to U.S. provisional patent application Serial No. 60/087,908, filed June 4, 1998, which applications are hereby incorporated herein in their entirety.--

## IN THE CLAIMS

Please cancel claims 1-34 without prejudice.

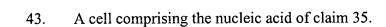
Please enter the following new claims.

--35. An isolated nucleic acid comprising a transcriptional unit for an immunogenic flavivirus antigen, wherein the transcriptional unit directs a host cell, after being incorporated therein, to synthesize the immunogenic antigen.

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36. The nucleic acid of claim 35, wherein the flavivirus is selected from the group consisting of yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus and Japanese encephalitis virus.

- 37. The nucleic acid of claim 35, wherein the antigen is selected from the group consisting of a prM/M protein, an E protein and both a prM/M protein and an E protein.
- 38. The nucleic acid of claim 37, wherein the antigen is both the prM/M protein and the E protein and wherein the host cell secretes subviral particles comprising the prM/M protein and E protein.
- -39. The nucleic acid of claim 35-which is DNA.
- 40. The nucleic acid of claim 35, wherein the transcriptional unit further comprises a control sequence disposed appropriately such that it operably controls synthesis of the antigen.
- 41. The nucleic acid of claim 40, wherein the control sequence is the cytomegalovirus immediate early promoter.
- 42. The nucleic acid of claim 35, wherein the transcriptional unit further comprises a poly-A terminator.





- 44. The cell of claim 43, wherein the flavivirus is selected from the group consisting of yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus and Japanese encephalitis virus.
- 45. The cell of claim 43, wherein the flavivirus antigen is selected from the group consisting of a prM/M protein, an E protein and both a prM/M protein and an E protein.
- 46. The cell of claim 45, wherein the antigen is both the prM/M protein and the E protein and wherein the cell secretes subviral particles comprising the prM/M protein and E protein.
- 47. A composition comprising the nucleic acid of claim 35 in a pharmaceutically acceptable carrier.
- 48. The composition of claim 47, wherein the flavivirus is selected from the group consisting of yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus and Japanese encephalitis virus.

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49. The composition of claim 47, wherein the antigen is selected from the group consisting of a prM/M protein, an E protein and both a prM/M protein and an E protein.

- 50. The composition of claim 49, wherein the antigen is both the prM/M protein and the E protein and wherein the cell secretes subviral particles comprising the prM/M protein and E protein.
- 51. The composition of claim 47, wherein the nucleic acid is DNA.
- 52. The composition of claim 47, wherein the transcriptional unit further comprises a control sequence disposed appropriately-such that it operably controls synthesis of the antigen.
- 53. The composition of claim 52, wherein the control sequence is the cytomegalovirus immediate early promoter.
- 54. The composition of claim 47, wherein the transcriptional unit further comprises a poly-A terminator.
- 55. A method of immunizing a subject against infection by a flavivirus comprising administering to the subject an effective amount of the composition of claim 47.
- 56. The method of claim 55, wherein the flavivirus is selected from the group consisting of yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus and Japanese encephalitis virus.
- 57. The method of claim 55, wherein the antigen is chosen from the group consisting of a



prM/M protein, an E protein and both a prM/M protein and an E protein.

- The method of claim 57, wherein the antigen is both the prM/M protein and the E protein, and wherein a cell within the body of the subject, after incorporating the nucleic acid within it, secretes subviral particles comprising the prM/M protein and E protein.
- 59. The method of claim 55, further comprising administering the composition to the subject in a single-dose.
- 60. The method of claim 55, wherein the composition is administered via a parenteral route.
- 61. The method of claim 55, wherein the nucleic acid is DNA.
- 62. The method of claim 55, wherein the transcriptional unit further comprises a control sequence disposed appropriately such that it operably controls synthesis of the antigen.
- 63. The method of claim 62, wherein the control sequence is the cytomegalovirus immediate early promoter.
- 64. The method of claim 55, wherein the transcriptional unit further comprises a poly-A terminator.
- 65. A polypeptide encoded by the nucleic acid of claim 35.



- 66. A method of detecting a flavivirus antibody in a sample, comprising:
- (a) contacting the sample with the polypeptide of claim 65 under conditions whereby an antigen/antibody complex can form; and
- (b) detecting antigen/antibody complex formation, thereby detecting a flavivirus antibody in the sample.

67. A method-of-diagnosing-a-flavivirus infection in a subject, comprising:

- (a) contacting a sample from the subject with the polypeptide of claim 65 under conditions whereby an antigen/antibody complex can form; and
- (b) detecting antigen/antibody complex formation, thereby diagnosing a flavivirus infection in the subject. --

## **REMARKS**

Claims 1-34 are pending in this application. Claims 1-34 are canceled herein without prejudice. New claims 35-67 are added herein. The specification is amended herein to update the priority claim for this application. Support for the new claims is found throughout the specification, as set forth below. It is believed that no new matter has been added by this amendment and these new claims and applicants respectfully request entry of same into the present application.

Support for new claims 35-64 can be found throughout the specification and in the